

rare and admirable, and such as I can hardly believe, that the like is to be discover'd in any other body in the world; for there is hardly a large Feather in the wing of a Bird, but contains neer a million of distinct parts, and every one of them shap'd in a most regular & admirable form, adapted to a particular Design: For examining a middle ciz'd Goose-quill, I easily enough found with my naked eye, that the main stem of it contain'd about 300. longer and more Downy branchings upon one side, and as many on the other of more stiff but somewhat shorter branchings. Many of these long and downy branchings, examining with an ordinary *Microscope*, I found divers of them to contain neer 1200. small leaves (as I may call them, such as EF of the first Figure of the 23. *Scheme*) and as many stalks; on the other side, such as IK of the same Figure, each of the leaves or branchings, EF, seem'd to be divided into about sixteen or eighteen small joints, as may be seen plainly enough in the Figure, out of most of which there seem to grow small long *fibres*, such as are express'd in the Figure, each of them very proportionably shap'd according to its position, or plac'd on the stalk EF; those on the under side of it, namely, 1, 2, 3, 4, 5, 6, 7, 8, 9, &c. being much longer then those directly opposite to them on the upper; and divers of them, such as 2, 3, 4, 5, 6, 7, 8, 9, &c. were terminated with small crooks, much resembling those small crooks, which are visible enough to the naked eye, in the seed-buttons of Bur-docks. The stalks likewise, IK on the other side, seem'd divided into neer as many small knotted joints, but without any appearance of strings or crooks, each of them about the middle K, seem'd divided into two parts by a kind of fork, one side of which, namely, KL, was extended neer the length of KI, the other, M, was very short.

The transverse Sections of the stems of these branchings, manifested the shape or figure of it to be much like INOE, which consisted of a horny skin or covering, and a white seemingly frothy pith, much like the make of the main stem of a Feather.

The use of this strange kind of form, is indeed more admirable then all the rest, and such as deserves to be much more seriously examin'd and consider'd, then I have hitherto found time or ability to do; for certainly, it may very much instruct us in the nature of the Air, especially as to some properties of it.

The stems of the Downy branches INOE, being rang'd in the order visible enough to the naked eye, at the distance of IF, or somewhat more, the *collateral* stalks and leaves (if I may so call those bodies I newly described) are so rang'd, that the leaves or hairy stalks of the one side lie at top, or are incumbent on the stalks of the other, and cross each other, much after the manner express'd in the second Figure of the 23. *Scheme*, by which means every of those little hooked *fibres* of the leaved stalk get between the naked stalks, and the stalks being full of knots, and a pretty way dis-join'd, so as that the *fibres* can easily get between them, the two parts are so closely and admirably woven together, that it is able to impede, for the greatest part, the transcurfion of the Air; and though they are so exceeding small, as that the thickness of one of these



Fig: 3.